

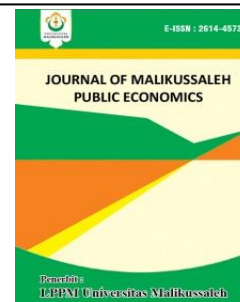
# The Efficiency Of Village Funds On Community Empowerment And Village Development In Kutamakmur District, North Aceh Regency

Siti Hajar Sari<sup>a\*</sup> Cut Putri Mellita Sari<sup>a\*</sup>

<sup>a</sup>Faculty of Economics and Business, Malikussaleh University

\*Corresponding author: [sitihajar.sari@gmail.com](mailto:sitihajar.sari@gmail.com)

\*[cmellita07674@gmail.com](mailto:cmellita07674@gmail.com)



## ARTICLE INFORMATION ABSTRACT

**Keywords:** Efficiency, Village Funds, Community Empowerment, Village Development.

*This study aimed to determine the Efficiency of Village Funds for Community Empowerment and Village Development in Kuta Makmur Sub-district, North Aceh Regency. The research use secondary data in the form of the 2018 Budget Realization Reports obtained from the Kuta Makmur Sub-district office, North Aceh Regency. The data analysis technique is conducted by calculating the efficiency of village funds using the DEA method (Data Envelopment Analysis) approach to see the level of output-oriented efficiency. The results of the study showed that. In 2018, there are only 5 villages fullfil the efficient criteria. These results indicated that the realization of the village funds budget does not reach the efficient criteria and the use of village funds for Community empowerment and Village Development not optimized.*

## 1. PRELIMINARY

Village financial management is regulated in law number 6 of 2014, which explains that village management is followed by district / city management which consists of income, expenditure and financing.

The efficiency of village funds it self is to calculate how much amount of budget used to obtain maximum results in Village Management, 10% is allocated for village government operations and 90% is allocated for physical and non-physical development (community empowerment) with non-physical provisions. no more than 30%. 10% of the village fund is used for operational expenditure for village government.

In addition, the role of government for the level efficiency at village funds and empowerment must be optimal, good cooperation is needed. The results of empowerment of village communities funded by village funds must be a driving force for the welfare of village communities, for example by establishing savings and loan cooperatives, BUMG, and training children who dropped out of school.

Village funds are provided to community as stimulation independence of village community in out carrying village development. Kutamakmur is one District in North Aceh Regency and total of 39 villages and a population of approximately 25,784 people, with of their livelihoods being farmers and planters with distance to the capital Regency about 28 Km.

In this occasion the researcher will examine village funds and community empowerment towards

village development in 10 villages in Kutamakmur District, North Aceh Regency efficiency.

**Table 1**  
**Realization of Village Fund Budget, Community Empowerment and Village Development in 2018**

village	Village fund (Rp)	Community Empowerment (Rp)	Village development (Rp)
Bayu	650.986.000	127.680.000	410.591.000
Blang Ado	780.340.000	135.351.000	610.531.000
Blang riek	810.860.000	721.761.000	150.760.000

Source: Kutamakmur Sub-district Office, 2018

Based on table 1, it can se the total funds disbursed by the government in Blang Riek village is IDR 810,860,000. The total funds allocation in several villages in 2018 became a phenomenon such as in Bayu Village, in 2018 the allocated budget was smaller total budget distributed by the government of IDR 650,986,000.

The problem that occurs that realization Blang Riek Village Development fund is less, amounting to IDR 150,760,000, while community empowerment it is greater, namely 721,761,000. This is different from Government Regulation no. 60 of 2014 village funds management amounting to 10% is allocated for village government operations and 90% is allocated for physical and non-physical development (community empowerment) with non-physical provisions of not more than 30%. 10% of village fund used for village

government operational expenditures, while in Blang Riek village opposite.

The total funds usage doesn't have a growth positive impact for village development that is not regional development policies stipulated in the Regional RPJM which is regulated in Law No.6 of 2014 have difficulty integrating development program policies, because integrate village development programs, local government regulation intervention is needed to refer regional development achieve maximum decentralization.

Apart from, community empowerment is highly dependent on the existence of village funds to support productivity community empowerment activities, this aims to growth potential community welfare increases.

Like the above phenomenon that occur above, the research aims to see how much rate of Village Fund Efficiency on Community Empowerment and Village Development in Kutamakmur District, North Aceh Regency.

Intan (2017) conducted research on an economic analysis of village fund policies on village poverty in Tulung Agung Regency. This research regression analysis method used static Panel data with Double Log model. The discrepancy this research and diamond is the output of village and method use DEA.

According Muslihah et al (2019) conducted research on the effect of village fund allocation on development and community welfare in Bantul district, Yogyakarta Special Region. The Research uses quantitative method, with average difference test, namely the Paired Sample T-test. The difference research with Siti's research is the use of the output of Community Empowerment analysis method used Data Envelopment Analysis (DEA).

This paper would several sections: the second part discusses theoretical studies, the third part discusses the research methods and data adopted, fourth part discusses the findings and implications research, the fifth part contains conclusions and policy recommendations.

## 2. Theoretical Study

### a) Efficiency

Efficiency is the ratio output to input or number outputs per unit compared to input. For example, responsibility center A is more efficient than responsibility center B. If, accountability center A uses less input than responsibility center B, but produces the same output or obtains greater results while the input used is the same. (Muharam, 2007).

Efficiency measurement can be through three approaches, namely:

#### 1. Ratio Approach

The ratio approach in measuring efficiency by calculating output and input ratio. ratio approach will be considered to have high

efficiency if it produce maximum amount of output with the minimum number of inputs possible.

$$\text{Efficiency} = \text{Output/Input.}$$

#### 2. The Regression Approach

This approach in measuring efficiency uses a model certain level of output as a function of certain levels of input. Its functions can be presented as follows:

$$Y = f(X_1, X_2, X_3, X_4 \dots X_n)$$

Where:

Y=output

X= input

#### 3. Frontier Approach

The frontier approach in measuring level efficiency two types divided, namely the parametric and non-parametric frontier approaches. The parametric frontier approach can be measured by using parametric statistical tests such as the Stochastic Frontier Approach (SFA) and the Distribution Free Approach (DFA) method.

Examined the analysis efficiency and effectiveness at village funds for the 2015 fiscal year in Leliwang sub-district, Bogor Regency, West Java Province. The analytical used form combination method (Mix Methods) with the Sequential Explanatory Design Model (Dian, 2016).

Examines the efficiency and effectiveness of regional financial management in Ngawi district, The method analysis used DEA (Santoso, 2011).

Examines analysis of the efficiency and effectiveness and direct expenditures for goods and services at the regional financial management office of Lumajang district. The analysis method in research used Balanced Secondary approach) (Endang Setyowati, 2011).

## B). Village Fund

Village funds are funds of source form APBN to increasing standard living of village communities so that they can empower people to become developed and synergistic villages.

Abidin (2015) researching the review implementation of village finance in supporting village fund policies. The analysis used descriptive qualitative method.

Listiyani (2015) researching the effectiveness of implementation policies on the use village funds in Gunung Pring village, Muntilan district, Magelang regency. The analysis used descriptive method with a qualitative approach.

Saputra (2014) examined the effectiveness management of village fund allocations in Lembean Village, Kintamani District, Bangli Regency. The analysis used is associative descriptive method.

### c). Community Empowerment

Community empowerment is the people's way, organizations, communities and groups are formed to be dominate their lives or empowerment is considered a people making participate process events and institutions that affect their lives.

Hadiyanti, (2008) researching strategies for community empowerment productive skills programs at PKBM Rawasari, East Jakarta. The analysis method used descriptive qualitative method.

Lengkey (2015) researching community empowerment use of village funds in Liwitung II village, Pasan sub-district, Minahasa Tenggara district. The analysis method used descriptive qualitative method.

Karimah et al., (2014) Researching the management of village fund allocations in community empowerment in Deket Kulon village, Deket sub-district, Lamongan district. The analysis method used descriptive method with a qualitative approach.

### d). Village Development

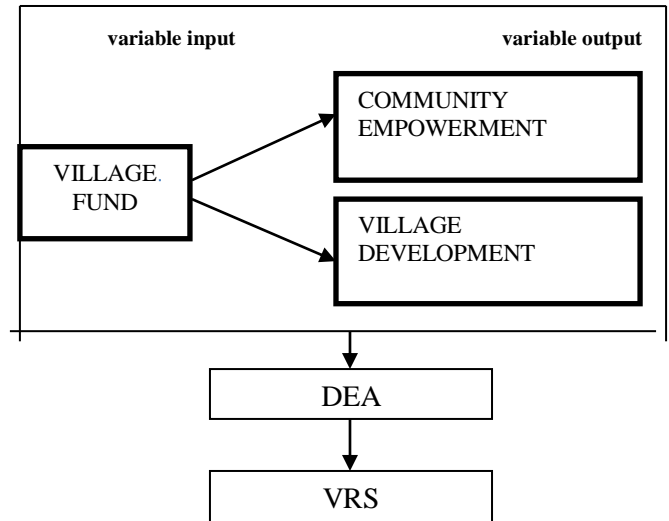
Village development is a participation the government and society, the government's obligation is to provide improvement and target, the rest is left to community according to its capabilities. The village development process is a mechanism of government wishes of community. This combination determines success of development. (Suparno 2001).

Thomas (2013) conducted research on the efficiency of village fund management it an attamt to improve village development and community welfare in Sebayang sub-district, Tanatidung Regency. Which analysis method used DEA.

Conducted research impact of village fund allocation on development and community welfare in Bantul district, Yogyakarta Special Region. This Research quantitative method with the mean difference test used, namely the Paired Sample T-test (Muslihah et al., 2019).

Lili (2018) conducted research on management of village fund allocations is effort to improve the economic development of rural communities in the village of Magmagan Karya, Lumar sub-district. The analysis method used multiple linear regression.

### e). Conceptual Framework.



**Picture 1**

From the picture above it can see the input variable is Village Fund and the output variable is Community Empowerment and Village Development. And VRS using model

### f). Research Hypotesis

The research hypothesis is an assumption that is usually true and could be wrong and need to tested for its truth, usually it is basis for decision making to solve problems in a study. To be lead the research of the results, with reference to formulation problem, theoretical review last research that described, this hypothesis will be tested for correctness and the results will be used input or suggestions, the authors formulate an alternative hypothesis as follows:

$H_0$ : It is suspected that the Village Fund not a efficient condition towards Community Empowerment and Village Development in Kutamakmur District, North Aceh Regency.

$H_a$ : It is suspected that the Village Fund is efficient for Community Empowerment and Village Development in Kutamakmur District, North Aceh Regency.

## 3. RESEARCH METHODS

### 1. Data and Data Sources

The research uses secondary data, namely data obtained from certain institutions or related agencies such as village offices, sub-district offices, RPJMdes and various other important documents related to research. The data form are village funds, Community Empowerment and village development in Kutamakmur District, North Aceh Regency during the 2018 period.

## 2 Operational Definition Of Variable

1. Village Fund is the fund given by the APBn to empower the community to realize synergistic village development. Village funds in this research are measured in rupiah (Rp).
2. Community Empowerment is a way community development into realize ability, independence in community life which is also measured in rupiah (Rp)
3. Village Development is a national development which very important meaning to achieve national goals because villages and their communities are the basis and object of economy, politics, socio-culture and defense and security. Village development includes the construction of buildings, infrastructure, facilities and infrastructure measured in rupiah (Rp).

### 3. Data Analysis Method

The analyze the efficiency of the use of village funds and descriptive research, community empowerment and village development in Kutamakmur sub-district, Aceh Utara district. This study uses the DEA method, which is a method for evaluating and solving problems by interpreting several inputs and outputs.

DEA is methodology used to efficiency which is responsible for using a number of inputs to obtain a targeted output to decision making. DEA is a Frictional programming model that can include many inputs and outputs. The DEA calculates efficiency measures on a scale basis and determines the efficient input and output levels for the unit being evaluated.

Efficiency measurement using the DEA method can be determining the input and output variables. Next, determine the orientation of the model, whether it aims to minimize input or maximize output. The input and output releshionsip variables, whether they are Constant Return to Scale (CSR) or Variable Return to Scale (VSR), an important aspect of the DEA technique.

#### a). Efficiency Testing Using The Variabel Return to Scale (VRS)

Approach This model was developed by the BBC (Banker, Charnes, Cooper) in 1984 and is a development of the CRS model. This model assumes that the DMU does not need to be in an optimal scale. The assumption of this model assumes that the ratio of input and output is not the same (variable Return to Scale) . That is, adding the input by n times will not cause the output to increase by x times, it can be smaller or greater than n times. Increasing proportions are not in the form of Increasing Return to Scale (IRS) or also Decreasing Return to Scale (DRS). This model

results add to the convexicity conditions for the weight values  $\chi$ , by following constraints:

$$\sum_{j=1}^n \chi_j = 1$$

Furthermore, the BCC model can be written with the following equation:  $\chi \max \pi$  (Efficiency of VRS Model).

$$\sum_j^n = 1 x_{ij} \chi_j \geq \pi i_0 \quad i = 1, 2, \dots, m$$

$$\sum_j^n = 1 y_{rj} \chi_j \geq y_{r0} \quad r = 1, 2, \dots, s$$

$$\sum_j^n = 1 \chi_j \geq 1 \quad j = 1, 2, \dots, n$$

where:

$\pi$  =Efficiency of DMU Value

n = Number Of DMU

m = Number of input

s = Number of output

$x_{ij}$  = the number of the ith input DMU j

$y_{rj}$  = sum of DMU r-th output j

$\chi_j$  = number of DMU j for calculated DMU

## 4. Results Of Research And Discussion

### a). Results of Variable Data Return to Scale (VRS) in 2018

**Table 2**  
efficiency of village funds in Kutamakmur district in 2018

Year	Name of village	Efficiency Level
2018	Bayu	0.903
	Krueng Manyang	1.000
	Krueng Seunong	0.968
	Cempedak	1.000
	Blang Ara	1.000
	Blang Talon	0.909
	Blang Ado	0.909
	Blang Riek	0.990
	Guha Uleu	1.000
	Blang Gurah	1.000
	<b>Rata-Rata</b>	<b>0.967</b>

Source: the results of data processing Deap versi 2.1

From table 2 above it can see level of efficiency Community Empowerment and Village Development not efficient in the Bayu villages, Krueng Seunong, Blang Talon, Blang Ado, and Blang Riek, the efficiency value  $< 1$  indicates that the village not on the Frontier line, while in other villages, namely the villages of Krueng Manyang, Cempeudak, Blang Ara, Blang Talon and Guha Uleu, the efficient value is indicated by a value  $> 1$  Frontier line.

This research contains a discussion about the level of inefficiency see from the output, in 10 villages on results of the calculated of DEA efficiency handle inefficiency outputs to be efficient. The following describes the inefficiency of the variable Community Empowerment and Village Development 5 villages in the Kutamakmur sub-district using inefficiency VRS.

**b). Level of efficiency Village Funds in Kutamakmur District Experiencing Inefficiency in 2018 Using the VRS Method.**

The testing of result using the output-oriented VRS method, it can see the value of the efficiency scale of village funds in the villages of Bayu, Krueng Seunong, Blang Gurah, Blang Ado, and Blang Riek which are  $< 1$ . The Community Empowerment and Village Development are inefficient, making of inputs process that have not reached the efficiency scale, which causes inefficient output.

The following can see in table 3 the grade of efficiency in Bayu village based on each of the variables used.

**Table 3**  
**Original Value, Radial Movement, Slack Movement and Project Value input-output in Bayu village using VRS Method**

Variable	Original value	Radial movement	Slack movement	Projected value
Community Empowerment	12768000.000	13729138.917	0.000	141409138.917
Village development	41059100.000	44149912.883	0.000	454740912.883
Village Funds	65098600.000	0.000	0.000	65098600.000

*Source: The Results of data processing Deap Version 2.1*

In table 3 it can see the output Community Empowerment is inefficiency with an original value of Rp. 12768 billion and a projected value of Rp. 141409138,917, it can see the projected value is greater than the original value. To get an efficient value, Bayu Village must increase the budget for community empowerment an average of IDR 13729138,917.

Whereas for Village Development experiencing inefficiency with an original value of IDR 410591000.000 and a Projected Value of IDR454740912,883 it can see that the Projected Value is greater than the original Value. To get an efficient value, Bayu Village must increase the budget for village development by an average of IDR 44149912,88.

**Table 4**  
**Original Value, Radial Movement, Slack Movement and Project Value input-output in Krueng Seunong village using VRS Method**

Variable	Original value	Radial movement	Slack movement	Projected value
Community Empowerment	110348000.000	3618727.936	0.000	113966727.936
Village Development	39054000.000	12807282.491	0.000	403347282.491
Village Funds	57090000.000	0.000	0.000	570900000.000

*Source: The data Result processing Deap Version 2.1*

In table 4 it can see the output of Community Empowerment is inefficiency with an original value of IDR 110348000.000 and a Projected Value of IDR 113966727.936, it can see the Projected value is greater than the original value. To get an efficient value, Krueng Seunong Village must increase the budget for community empowerment an average of IDR 3618727,936

Where as for Village Development experiencing inefficiency with an original value of Rp. 3905400,000. Projected Value of Rp. 403347282,491 it can be seen that the Projected value is greater than the original value. To get an efficient value, Krueng Seunong Village must increase the budget for village development by an average of IDR 12807282,491.

**Table 5**  
**Original Value, Radial Movement, Slack Movement and Project Value input-output in Blang Talon village using VRS Method**

Variable	Original value	Radial movement	Slack movement	Projected value
Community Empowerment	120654000.000	12057694.992	0.000	132711694.992
Village Development	47062100.000	47032045.972	0.000	517653045.972
Village Funds	66700000.000	0.000	0.000	667000000.000

*Source: The Results of data processing Deap Version 2.1*

In table 5, it can see output of Community Empowerment is inefficiency with an original value of Rp.120654000.000 and a Projected Value of Rp.132711694.992. It can see that the Projected value is greater than the original value. To get an efficient value, Blang Talon Village must increase budget for community empowerment an average of IDR 12057694,992

Where as for Village Development experiencing inefficiencies with an original value of IDR470621000,000 and a Projected Value of IDR, it

can see the Projected Value is greater than the original Value. To get an efficient value, Blang Talon Village must increase the budget for village development by an average of IDR 517653045,972.

**Table 6**  
**Original Value, Radial Movement, Slack Movement and Project Value input-output in Blang Ado village using VRS Method**

Variable	Original value	Radial movement	Slack movement	Projected value
Community Empowerment	13535100.000	13483891.017	0.000	148834891.017
Village Development	61053100.000	60822110.019	0.000	671353110.411
Village Funds	78034000.000	0.000	0.000	780340000.000

Source: The data result processing Deap Version 2.1

In table 6 it can see output of Community Empowerment is inefficiency with an original value of Rp. 135351000,000 and a Projected Value of Rp. 148834891,017, it can be seen that the Projected value is greater than the original value. To get an efficient value, Blang Ado Village must increase the budget for community empowerment an average of IDR 13483891,017.

Whereas for Village Development experiencing inefficiencies with an original value of Rp.610531000.000 and a Projected Value of Rp.671353110.411, it can see Projected Value is greater than the original Value. To get an efficient value, Blang Ado Village must increase the budget for village development by an average of Rp. 60822110.019.

**Table 7**  
**Original Value, Radial Movement, Slack Movement and Project Value input-output in Blang Gurah village using VRS Method**

Variable	Original value	Radial movement	Slack movement	Projected value
Community Empowerment	15023000.000	2509961.852	0.000	152739961.852
Village Development	43954100.000	7343614.073	0.000	446884614.073
Village Funds	67090000.000	0.000	0.000	670900000.000

Source: The data result processing Deap Version 2.1

In table 7 it can see output of Community Empowerment is inefficiency with an original value of Rp.15023 billion and a Projected Value of Rp.152739961.852, it can see that the Projected value is greater than the original value. To get an efficient value, Blang Gurah Village must increase the budget for community empowerment an average of IDR 2509961.852.

Whereas for Village Development experiencing inefficiencies with an original value of IDR 439541000.000 and a Projected Value of IDR 446884614.073 it can see Projected value is greater than the original value. To get an efficient value, Blang Gurah Village must increase the budget for village development by an average of IDR 7343614,073.

## b. Discussion

The result research using VSR explain that of input and output in villages to be different.

First, the inefficient use of input to produce output that exceeds the target where it should be 60% for village development and 30% for community empowerment, but what happens is sometimes the opposite.

Second, the inefficiency community empowerment output and the number of members for community empowerment exceeds and reduces the required target. The solution can be refer to the village medium term development plan and assistance from village assistants so the future it is better monitored, so the community empowerment program is even and on target.

Third, inefficiencies occur in the output of village development, here the village head not have lot of physical development and be accompanied by non-physical, from several villages that was sampled, many of which were found focused on physical development, the village head should be oriented and refer to RPJMdes and village meetings so that no misuse of budget.

This research was same with Thomas' research by the title Efficiency of Village Fund Allocation Management in Efforts to Improve Village Development and Community Empowerment in Sesayap District, Tana Tidung Regency. Results of The research that 10 villages out of 15 villages where the research not efficient as expected and the rest were less than optimal. The low human resources of village officials and lack of coordination management regarding of Village Fund Allocation (ADD) are allegedly an obstacle in managing process the Village Fund Allocation.

## 5. CONCLUSIONS AND RECOMENDATION

### a. Conclusions

The results of this DEA efficiency analysis with the VRS model on Village Empowerment and Development, it was that 10 villages sampled were 5 efficient villages in 2018, namely villages (Krueng Manyang, Cempeudak, Blang Ara, Blang Gurah and Guha Uleu) were efficient indicated value > 1 and found on Frontier line. And there are 5 inefficient villages, namely the villages of Bayu, Krueng Seunong, Blang Talon, Blang Ado, and Blang Riek, efficiency of value < 1 indicates that the village is not on the Frontier line. Several problems that occur village that no efficiency of community empowerment and village development due to low community

participation, the implementation stage is still ineffective where the village fund budget has not been on target and the accountability stage is still not right and no evaluation of activities carried out with the community.

## b. Recommendations

From the research above, that should be community participation so that in the future community empowerment and village development can be more efficient. Furthermore, where the implementation stages of the use of village funds have not been right on target, it should be in accordance with what is stated in the RPJMDes (Village Medium Term Development Plan) and finally there must be an evaluation in every activity carried out.

## LITERATURE

Abidin, M. Z. (2015). Tinjauan Atas Pelaksanaan Keuangan Desa dalam Mendukung Kebijakan Dana Desa. *Jurnal Ekonomi & Kebijakan Publik*, 6(1), 61–76. <https://doi.org/http://dx.doi.org/10.22212/jekp.v6i1.156>

Dian, N. (2016). Analisis efisiensi dan efektivitas pengelolaan anggaran dana desa tahun 2015 di kecamatan leuwiliang kabupaten bogor provinsi jawa barat. *Ekonomi*, 9(2), 10. <https://doi.org/10.5151/cidi2017-060>

Endang Setyowati. (2011). Analisis Efisiensi Dan Efektivitas Pengeluaran Anggaran Belanja Langsung Barang Dan Jasa Pada Dinas Pengelola Keuangan Daerah Kabupaten Lumajang. *Jurnal Ekonomi*, 1–13.

Hadiyanti, P. (2008). *Strategi Pemberdayaan Masyarakat Melalui Keterampilan Produktif*. 17(April), 90–99.

Karimah, F., Saleh, C., & Listiyani, R. (2014). Pengelolaan Alokasi Dana Desa Dalam Pemberdayaan Masyarakat. *Jurnal Administrasi Publik (JAP)*, 2(4), 597–602.

LENGKEY, S. E. (2015). *pemberdayaan masyarakat dalam pemanfaatan alokasi dana desadi desa liwitung II kecamatan pasan kabupaten minahasa tenggara*. 3(2), 1–9.

Lili, M. A. (2018). Pengelolaan alokasi dana desa dalam upaya meningkatkan pembangunan ekonomi masyarakat di desa magmagan karya kecamatan lumar. *ARTIKEL ILMIAH Ekonomi Dan Bisnis Universitas Tanjungpura*, 1(ekonomi), 5–19.

Listiyani, R. (2015). Efektivitas Implementasi Kebijakan Penggunaan Dana Desa Tahun Anggaran 201 Di Desa Gunungpring Kecamatan Muntilan Kabupaten Magelang. *Fis Uny*, 1–12.

MUHARAM, H. (2007). Analisis Perbandingan Efisiensi Bank Syariah di Indonesia Dengan Metode Data Envelopment Analysis (periode Tahun 2005). *Jurnal Ekonomi Dan Bisnis Islam*, II(3), 80–166.

Muslihah, S., Siregar, H. O., & Sriniyati. (2019). Dampak Alokasi Dana Desa Terhadap Pembangunan Dan Kesejahteraan Masyarakat Desa Di Kabupaten Bantul Daerah Istimewa Yogyakarta. *Jurnal Akuntansi, Ekonomi Dan Manajemen Bisnis*, 7 No. 1, J(1), 85–93. <https://doi.org/10.35791/agrsosek.13.2a.2017.17130>

Santoso, E. (2011). Efisiensi dan Efektivitas Pengelolaan Keuangan Daerah di Kabupaten Ngawi. *Tesis Master Program Pasjasarjana, UNS*, 1–75. [digilib.uns.ac.id](http://digilib.uns.ac.id)

Saputra, I. W. (2014). Efektivitas Pengelolaan Alokasi Dana Desa Pada Desa Lembean Kecamatan Kintamani, Kabupaten Bangli Tahun 2009-2014. *Efektivitas Pengelolaan Alokasi Dana Desa Pada Desa Lembean Kecamatan Kintamani, Kabupaten Bangli Tahun 2009-2014*, 81(2), 40.

Thomas. (2013). Pengelolaan Alokasi Dana Desa Dalam Upaya Meningkatkan Pembangunan Di Desa Sebawang Kecamatan Sesayap Kabupaten Tana Tidung.ejorunal Pemerintahan intergratif. *Ejurnal*, 1(1), 51–64.